

SOLENOID WITH NOISE REDUCTION

ABSTRACT OF THE DISCLOSURE

A solenoid having a housing and a coil disposed in the housing for generating a magnetic field when an electric current passes through the coil. A center pole is disposed within the coil, and the center pole is made of a ferromagnetic material. A rod assembly is movably disposed in the housing for movement between a rest position and an energized position. The rod assembly has a portion thereof disposed in the center pole, and includes a magnet having a polarity causing the magnet to be repelled from the center pole when an electric current passes through the coil. The magnet is encapsulated by an elastomeric material that contacts a stop surface when in the rest position to reduce noise resulting from shifting of the rod assembly from the energized position to the rest position.